

Neighborhood Traffic and Speed Mitigation Policy

Part I Authority

The Policy was originally endorsed on January 4, 2000, and updated on June 16, 2011, by the Frederick County Board of County Commissioners (BoCC) following a series of public briefings and draft input sessions with the BoCC, citizens, neighborhoods, and other agencies. The BoCC has delegated to the County Manager the oversight of the Policy and any appeals. The Division of Public Works will administer the Policy on a day-to-day basis and will serve as the defacto contact agency.

It is expressly stated herewith that the County has strict authority to maintain its own dedicated streets and rights of way, but has developed this Policy to fairly and openly define the criteria to allow the County to consider, and the public to know, which streets are eligible and which are not when the County is requested for certain specific responses to concerns about traffic conditions. This Policy in no way supersedes any continuing laws, rights, or practices permitted to any County agency. This Policy in no way entitles neighborhoods to expect as an obligation that the County must construct physical mitigations, nor does it imply that the County road standards are otherwise deficient as-is without said mitigations. Modern traffic calming measures, taken as a group, have been in use for over 20-25 years. They traditionally have been retrofit into residential street systems following a procedural request and approval process. They are not/have never been identified as necessary road design standards for new roads akin to design-speed slopes, curvatures, crowns, storm water runoff, superelevation, etc., Because of their historical use and precedence these mitigations are recognized as permitted traffic calming measures which now enjoy uniformly developed criteria for design and purpose when constructed and used within guidelines. In lay terms, they may be used but they don't have to be used.

This is a policy . . . not an ordinance. As such it is subject to periodic update revisions and/or interpretations when questions arise, or if subsequent appeals so dictate. The County Manager shall use his/her best judgment as to when it may be necessary to consult the BoCC to consider significant revisions, however, the County Manager remains available at the BoCC's pleasure to brief them at any time. The most recent revision to this Policy is June 16, 2011.

Part II Definitions

Agent The neighborhood representative and point-of-contact. The person/s who is/are directly responsible to speak on behalf of the petitioners, and who shall solicit the petitions, and who shall negotiate in good faith with the County. This person is responsible to faithfully report back to the other residents.

Average Speed The sum of all speeds divided by the sum of all vehicles recorded.

85th Percentile Speed That speed, and less, traveled by 85 of 100 motorists. It is recognized by the engineering and enforcement communities to be that speed, and less, that is travelled by the "reasonable majority" of motorists for the given conditions. Fifteen out of 100 are considered to be "unreasonably" speeding. It is these 15% that are usually targeted for enforcement.

Boundary of Affected Residents

NOTE: it is only necessary to develop this boundary when there is NOT a HoA representation to otherwise "speak for" the neighborhood.

(Rationale: it is necessary to identify a list of residents who would be directly affected by the mitigations, and possibly other neighboring residents who may be indirectly affected. The County, in agreeing to consider allowing mitigations, SHALL decide the boundary.) At a minimum, said boundary SHALL include all properties for which a resident MUST pass over the subject limits in order to access his/her house, in either or both of two directions of approach, inclusive of mid-block cul-de-sacs wherein those residents have no choice but to use the affected street/s. It MAY also include others who live on adjacent side-streets in the immediate community and who enjoy a neighborly presence via same-schools, shopping, or recreation facilities, etc., and who, in the opinion of the County, have a strong expectation to require to drive the subject limits regularly, excluding through commuters. Said boundary shall exclude non-neighborhood residents whose residences are deemed removed from the petition limits, and who are herewith considered to either have the choice to avoid or negotiate the installed mitigations.

County Unless otherwise specified herein, this term shall generally refer to the Division of Public Works, who shall act as agent on County's behalf and manage the day-to-day administration of this policy. However, the County Manager shall have immediate approval and oversight, and SHALL be briefed of all milestone events, and SHALL formally sign-off prior to any mitigation being installed. The County Manager will direct when it is necessary to employ the input of any other agencies, including such that the Board of County Commissioners may need to opine or decide any disputes or major policy determinations.

Favorable Geometries These refer to lack of physical problems in locating mitigation devices like humps, circles, and narrowed streets. "Favorable geometries" would mean that horizontal and vertical curves would not otherwise obstruct or conflict with placing said devices. Most mitigations cannot and should not be located within close proximity to limited sight distances, et al. These conditions shall be reviewed on a case-by-case basis.

First Petition The necessary initial step in requesting County response to agree to investigate to pursue a special neighborhood mitigation plan. (Note: a "Second Petition" is necessary to agree to the final proposed solution/s.) Fifty-One percent (51%) of those affected (and not merely "polled") must be in favor.

HoA, or Homeowners Association In this document, any neighborhood which has established a residents' dues-paying organization, and for which the organization has decision making authority, shall be assumed to speak on behalf of all residents therein.

The board of directors, et al, or their delegate shall constitute the "Agent," and the board is responsible to obtain majority approvals, etc., per the HoA's bylaws and rights.

Mitigation Scheme The requested or negotiated solution/s that the County can agree to install, assuming that all other facets of this policy are met.

"Other" Acceptable Traffic Study Any data collection and/or analysis performed by a person or firm that practices traffic engineering principles, and which employs universally acceptable methods and tools such as radar guns, sampling, or machine-recorded data. If there are any prior doubts, please confer with the County beforehand.

Peak Hour Usually meant to be either the morning or afternoon (or both) hours when traffic volumes are greatest, usually coinciding with daily commute hours and patterns. The peak hour is the four consecutive 15-minute intervals that usually occur sometime between the 6-9 a.m. and 4-7 p.m. "windows."

Primary Emergency Routes These are defined herein as streets identified by the County that serve/front fire stations, police stations, hospitals, and clinics. The County Manager shall solicit input from staff, and as-necessary, the Fire and Rescue Association and Sheriff, et al. Said streets constitute regular and daily use to facilitate fire, rescue, and emergency response vehicles. In lay terms, said streets constitute an extremely high aggregate sum of response-vehicle mileage, whereas, a "non primary" street would have an extremely low occurrence of response mileage accumulation

Second Petition The Second Petition may or may not be the same list of names as the First Petition but it still must represent > 51% of those affected and not merely > 51% of those polled. It is possible that someone who favored to investigate to install mitigations has changed his/her mind, or otherwise does not approve of the developed plan.

Subdivision Collector Streets At the discretion of DPW, and solely for purposes of this Policy only, Subdivision Collector Streets are usually only primary local streets (not secondary or tertiary) which "collect" side-street local driveway volumes. Said streets usually are entirely within named subdivisions but often connect immediately adjacent named subdivisions. They may or may not also have direct driveway accesses themselves, and secondarily might have fronting commercial or public-use properties (day cares, convenience retail, schools, etc.) Lot layout and house styles tend to be uniform, but may differ in style or variety. Examples: Livingston Drive, Kelly Road, Lomar Drive.

Subdivision Residential Streets At the discretion of DPW, and solely for the purposes of this Policy only, Subdivision Residential Streets are primary, secondary, and tertiary local streets whose basic function is to provide driveway access or to provide inter-subdivision links to similar streets having driveway accesses. Lot sizes are generally planned and uniform. Adjacent properties and house styles are typically similar, and often contain town homes, apartments, and/or single-family styles. Examples: the streets in Robin Meadows et al, Foxcroft et al, and West Oak Fields et al.

V.P.D. Vehicles Per Day A 24-hour, two-way count of how many vehicles pass over that location in an average day.

Part III General Outline of Policy

1. The Initial Inquiry may be as simple as a phone call to the Office of Transportation Engineering (hereafter, "Office") to request help with a perceived speeding problem, or to discuss a traffic problem. (To request to reverse a previous mitigation, the process is the same! A majority is required.)

2. If the decision is to proceed, then in Non-HoA neighborhoods⁽¹⁾ the Office will determine the Boundary of Affected Residents and will require to identify a Contact Person (hereinafter, "Agent"). The County, as the "owner/operator" of the street/s assumes the right and responsibility to determine the affected boundary and SHALL use the description found in "Definitions".

3. Upon confirming either the (Non-HoA neighborhood) "Boundary" or the (HoA neighborhood) proper authority, the Agent may proceed to formalize the First Petition via either a door-to-door petition (former) or "letterhead request" (latter). [NOTE: a "Second Petition" is necessary later to approve said plan] For example purposes, here are the two methods, in greater explanation.

Either;

A. In the absence of a homeowners' or civic association, the neighbors within the defined "Boundary" shall be petitioned, said petition to be favored by at least 51 percent of the homes and/or apartments therein. Only one vote per home will be recognized in order to simplify the "one dwelling/one vote" concept. The residents per dwelling therein must decide on their own how their one vote shall be cast. The Agent is responsible to account for ALL homes in the Boundary. Non-responsive or non-solicited homes shall be considered negative votes. The County will not merely accept that > 51% of those polled agree, but will require that > 51% of those affected agree. [Note: a waiver against liable claims is inclusive in the standard petition.]

Or;

B. A duly authorized letter from a homeowners association or neighborhood civic association, which clearly demonstrates the HOA's purview over the boundary area AND the manner in which the association body has duly affirmed the request. It is understood that the petitioned roads must fall within the HOA boundaries. The letter must also state that "We hereby release the County from and waive any claims we now or in the future may have relating to the correct installation of any traffic calming devices that we agree to be installed."

4. The Office MAY opt to schedule to perform a Neighborhood Speed and/or Volume Study to confirm the problem and/or to inform you or determine for you if basic

threshold criteria exists. In some cases, the Office MAY proceed to waive said study based on any combination of historical complaints, baseline knowledge, or other reasons. In any event, the complainant SHALL be notified of a decision by the Office to proceed or to decline to pursue mitigations. The complainant MAY be recommended to pursue a neighborhood Education campaign, including any Office help to place and confirm speed limit signs, or to coordinate as necessary with the Sheriff's Office special Traffic Enforcement Division.

5. Upon receipt of a valid First Petition, the Office will proceed to work with the Agent and any of his/her designated neighbors to develop a mitigation scheme. The community SHALL schedule a neighborhood meeting/s or newsletter updates as necessary to report progress. All dwellings within the Boundary of Affected Residents SHALL be regularly informed of progress. The Office is available to attend, if requested, and will provide any pertinent traffic data or backup. Upon satisfactory progress, the Agent SHALL obtain Second Petition approval (further explained elsewhere) which is approval of the recommended plan.

6. Upon receipt of Second Petition approval, the County will accept the street/s onto a candidate list (first come, first served) for implementation, subject to funding availability and/or funding approval by the Board of County Commissioners.

7. Some Sample Mitigations

For purposes of this policy, and as a means to generate ideas, some options are listed below, but are not further defined/explained herein due to lack of space. There will be time for that at the neighborhood meetings.

- Neighborhood Speed and Traffic Education (HOA newsletter, etc.)
- Speed Enforcement (Sheriff's Office)
- Speed Awareness Speed Display Sign
- Creative Signing and/or Striping
- Rumble Strips
- Speed Humps
- Community-requested Parking Restrictions
- One-Way Travel Restrictions
- Traffic Islands / Intersection or Mid-block Circles
- Chokers / Road Narrowing
- Improved Pedestrian Walkways or Refuge Islands
- Raised Crosswalks ("Speed Tables")
- Special-areas (School crosswalks, day cares, churches, and neighborhood "gateways" etc.)

Part IV Pre-Qualifying Criteria to Determine Candidate Streets/Locations

1. Streets Must be Suitable for Requested Mitigations

Ultimately, the County is the responsible authority and must allow that the requested mitigation is appropriate and permissible for a particular street condition. The following general descriptions are presented as baselines only, with all parties recognizing that not all streets may fit neatly into said categories. The County reserves the right to make final determination whether the subject street/s are suitable or not.

A. Subdivision Residential Streets are ideally suitable. They typically serve neighborhood-sized or community-sized populations. They SHALL have a maximum posted speed limit of 25 mph and SHOULD have volumes ranging from 350 vpd to 2500 vpd, respectively, the former volume being a mandatory minimum to justify a physical mitigation (humps, et al) response. Traffic calming devices/measures, when approved, are often found foremost on this street class. Absent an exemption through the County Manager, these streets are ineligible; however, if at any point in the discovery process they are classified as primary emergency response routes.

B. Subdivision Collector Streets may be suitable. They typically serve community-sized populations, and not district-sized or region-sized populations. They SHALL have a maximum posted speed of 30 mph and SHOULD have 350-3500 vpd. Physical devices, if placed, are usually spot-specific, but they can also be placed along the nominal length. Absent an exemption through the County Manager, these streets are ineligible; however, if at any point in the discovery process they are classified as primary emergency response routes.

C. Ineligible Streets are other than defined above and have one or more of the following traits: i) they have a volume less than or greater than the threshold criteria; ii) the road is posted for 35 mph or greater; iii) they are primary emergency response routes; iv) they typically serve district-sized or regional-sized populations. "Ineligible streets" will NOT be considered for physical traffic calming measures that directly force vehicles to slow, divert, or otherwise yield to devices, excepting that some streets MAY be permitted to pursue atypical indirect measures on a case-by-case basis to request stepped-up enforcement, or to creatively sign and stripe the road, and/or to educate motorists to calm their habits.

2. Traffic Data Criteria

A. For eligible streets, the County or other acceptable traffic study (see "Definitions") SHALL confirm that the Average Speed exceeds the posted speed by 3 or more mph AND/OR that the 85th percentile speed exceeds the posted speed by 8 mph or more. The County MAY accede that the volumes are within the specified ranges, or MAY cause to perform speed studies to verify this. Rationale: a "speeding" problem might be when one or more cars are observed going fast, whereas, a "speed" problem suggests that a consistent population is traveling faster than desired for the preferred condition, i.e., a subdivision situation.

B. Streets having <40 veh's/peak-hour/avg day (350 vpd), or having >420 veh's/peak-hour/avg day (3500 vpd) are ineligible. Rationale: a peak hour is a very good "snap shot" and is generally between 9 and 15 percent of daily volume; let's say 12 percent. Forty

v/pk-h equates to one car every 1½ minutes, and is cost ineffective to address via physical means.

C. Streets < 0.15 mile (800 feet) are not eligible. Rationale: it is unlikely to "exactly halve" an 800-ft. long street with a device at 400 ft. in order to meet the optimum spacing. Also, it is perceived by the County that one physical device placed at or near mid-block is cost-ineffective.

D. Mid-block street sub-sections will not be permitted. The minimum limits must be at least fully between what is generally recognized to be the "ends" of the street, or at the very least, two major cross streets.

E. Streets experiencing traffic readily attributed to a temporary condition may not be considered for permanent traffic and speed mitigations. The County will determine if a temporary traffic generating condition exists. Examples may include temporary detours caused by road/bridge construction, road closures, or nearby land development. Such temporary conditions may exist for some time, but are ultimately finite in nature.

3. Favorable Geometry Must Exist to Install Physical Devices

The County SHALL review that there exist favorable horizontal and vertical geometries and sight distances ahead to any proposed mitigations. At the County's discretion, there SHALL be sufficient spacing of devices between driveways, et al, and appropriate opportunities for device placement. This spacing varies depending upon the devices used.

Part V Implementation

1. Decision to Approve or Deny

The County reserves the right to approve or deny a valid First Petition if the street does not have favorable geometries or thresholds.

A. Approval: If the County finds that the street/s meets basic threshold criteria and qualifies for mitigation then a design schematic solution shall be developed in coordination with the Agent. County shall identify a funding source, schedule, and plan of action, etc., to install the mitigations. What if funding doesn't exist?

B. Denial: If the County does NOT determine that streets qualify, or otherwise finds unfavorable conditions, then they may find cause to recommend against the improvements.

2. Second Petition

After meeting with the County and together developing some solutions, the Agent(s) must secure > 51% "Second Petition" approval of the locations, nature, design, messages, etc., that are agreed-to by the County. Only upon "Second Petition" approval can or will the County move towards implementation.

Part VI Specific Criteria For Speed Humps ⁽²⁾

1. Location and Siting

The street design must allow that geometries exist that can accommodate the requested measures.

A. Speed humps, etc., are discouraged within 200-300 feet or less of sharp curves, intersections, and at other areas of limited visibility ahead to the device.

B. Humps SHALL NOT be placed at residential driveways and SHOULD be placed at property lines or between driveways.

C. If mid-block pedestrian crossings exist or special areas (i.e., school zones, churches, day cares, etc.) are specifically cited for concern then humps MAY be used to mitigate speeding there. A pair of humps (on both sides of the marked crossing) or a raised crosswalk (combination hump/crosswalk) might be desirable.

D. On open section streets, adjacent property owners are hereby advised that they may wish to consider installing or allow to be installed on their lawns detriments against driving around the humps on the grass shoulders. The County assumes no responsibility to have to place devices on private property to deter this potential practice.

2. Spacing

NOTE: Residents should expect that multiple humps/mitigations may be placed along the street, since one hump only will NOT necessarily deter speeding further upstream or downstream. Desirable functional spacing between successive target locations shall be about 300 feet but not greater than 750 feet. Rationale: this is the distance which a vehicle may attempt to use to get back up to "speeding" speed before it must slow down to negotiate the next device.

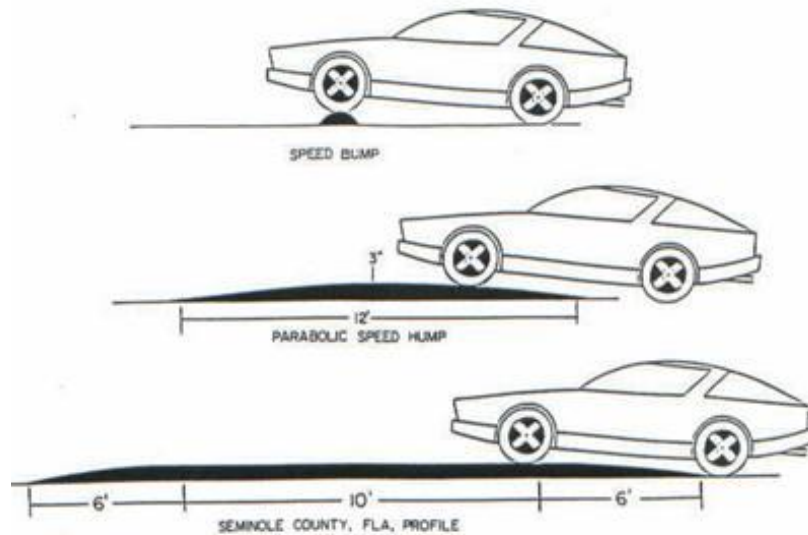
A. Pursuant to VI-1-C above speed humps MAY be placed in pairs to increase their effectiveness. When/if installed in pairs humps SHOULD generally have no separation less than 10 feet or greater than 40 feet.

B. The first hump (if in a series) should ideally be located in a position where it can be adequately forewarned.

3. Advance Warning

At a minimum, one yellow diamond-shaped warning sign shall be placed in advance to a solitary hump or device (this is similar to a school crosswalk scheme) and the hump/device shall be marked for visibility and contrast to the pavement. A series of humps or devices may be forewarned with "SPEED HUMPS/NEXT xx MILE" or similar. Each individual hump or device may also have the requisite pair of warning signs

and paint.



Bumps versus Humps

The County does not endorse to use bumps, as shown in the top figure. The County only endorses to use either style of humps shown in the middle and bottom figures.

4. Street Orientation

Speed humps shall be installed at a right angle to the centerline tangent of the street. All attempts shall be made to locate humps at property lines.

5. Height and Width

Standard humps are almost always 3" high and certainly no higher than 3½ inches. "Watts" style (parabolic) humps gently rise up to 3" high over a distance of 6-8' and then slope down again over another 6-8 feet, for an in-place width of 12-16 feet. We recommend a "sinusoidal" (wave-shaped) tangent at the leading edges for a smooth, snow plow-accessible transition. "Seminole" style (flat-tops or "speed tables") designs are also acceptable. They "ramp up" to 3" high over a distance of 6 feet, then are flat for 10 feet, and then ramp down over the final 6 feet, for an in-place width of 22'. Both designs are snow-plowable. [The dimensions described herein are standard, however, the County reserves the right to modify as necessary or to try other designs which are proven favorably elsewhere.]

Part VII Decision Process

1. County Will Agree to Maintain Said Solution

Assuming a favorable solution, the County agrees in advance to maintain the humps or devices pursuant to DPW's policy "To Address the Placement of Permanent Structures

within the County Maintained Rights of Way" (effective 4/6/94) which allows for certain items to exist in the County's R/W as long as safety and maintenance are not hindered. [The parabolic and flat-top humps are pre-approved for use on county streets. They are nationally and internationally accepted traffic calming devices. The only negotiation shall be location selection and the requisite accouterments.]

2. Funding and Priority Installation

The amount of funding for this program is contingent upon the annual budget-adoption process of the Board of County Commissioners. The Division of Public Works will request an annual line-item fund from which to pay for approved neighborhood solutions. The annual requested amount will consider any pending mitigations, and will also request estimated additional funds for the (upcoming) fiscal year. Neighborhoods will generally be prioritized by DPW based on "first-come, first-served" but also with respect to organizing a reasonable, manageable, annual case-load of petitions and/or approvals. The County Manager will provide input into this process, as he/she will be regularly updated as to pending petitions.

3. Appeals

The Agent, on behalf of the petitioners or association, may appeal "an unfavorable decision" to the County Manager, who SHALL brief the BoCC of the issue and follow their direction to either redirect the County Manager or staff, hear the appeal, or refuse the appeal.

4. Options to Advance the Schedule for Installation

If the programmed schedule for installations is not agreeable to the petitioners they may request to fund the measures at their cost or they may use the "Appeal" process to advance the County's funding mechanism.

5. Waiting period before reapplying

If a road is found ineligible or is otherwise rejected by the County, and/or the petitioner's appeal to the County Manager is unsuccessful, the County will refuse to accept another petition for that road until a period of two years has passed.